

PRESS INFORMATION

Cost-effective equipping, linking and optimization of machine tools

Manuela Kessler | 15.09.2025 | Lohr am Main / Germany |



Volker Desch, Vice President Sales Business Unit Linear Motion Technology, Bosch Rexroth AG

Volker Desch, Vice President Sales Business Unit Linear Motion Technology, Bosch Rexroth AG
The economic situation in the machine tool construction industry remains tense. Manufacturers are therefore facing the challenge of finding new solution approaches in order to differentiate themselves from the competition, and to implement these as quickly and economically as possible. Innovative Linear Motion Technology can make a significant contribution to this. As a development and solution provider, we currently see great potential in the field of process automation in and on the machine tool. This is where manufacturers can position themselves as complete providers with cost-effective handling solutions – including automated workpiece loading or tool equipping. Mechatronic handling robots comprising single or multiple linear axes play a key role here, and can be selected, sized and configured quickly and intuitively at Bosch Rexroth using smart

PRESS INFORMATION

e-tools. To facilitate rapid mounting and commissioning, the subsystems are supplied pre-assembled – including the drive, cabling and control system.

This smart mechatronics building system enables a wide range of tasks to be handled in a modular manner, for example, the space-saving top-loading of a row of machines by a robot that moves along a heavy-duty axis. Linear robots can also be used for the transfer of sheet metal, flexible workpiece transport to different assembly stations or a highly dynamic pick-and-place system for the packaging sector.

With our innovative dual belt axis in size 280, payloads of up to 385 kg per carriage and thus a total of up to 770 kg can be moved synchronously or independently on an axis – for example, two assembly robots or two cobots. This allows highly efficient processes and minimum cycle times in the smallest of spaces.

All these solutions enable us to help machine tool manufacturers to stand out from the competition and expand their portfolios. We also believe there is potential for differentiation in the field of high-precision workpiece machining. We have also expanded our solution portfolio in this area as well, for example with our patented Thermo Compensating Rail System (TCRS), a temperature control function that is integrated into the guide rail in a space-neutral manner. With appropriate temperature compensation, part accuracy can be increased by up to 75 percent, process stability increased, and waste avoided. Position measurement can also be integrated directly into the linear guide, for example as an encoder for linear motors or as a dirt-resistant alternative for glass scales and thus contribute to greater precision in the machine tool.

Basic Information Bosch Rexroth

As one of the world's leading suppliers of drive and control technologies, Bosch Rexroth ensures efficient, powerful and safe movement in machines and systems of any size. The company bundles global application experience in the market segments of Mobile and Industrial Applications as well as Factory Automation. With its intelligent components, customized system solutions, engineering and services, Bosch Rexroth is creating the necessary environment for fully connected applications. Bosch Rexroth offers its customers hydraulics, electric drive and control technology, gear technology and linear motion and assembly technology, including software and interfaces to the Internet of Things. With locations in over 80 countries, around 32,600 associates generated sales revenue of 6.5 billion euros in 2024.

Basic Information Bosch

The Bosch Group is a leading global supplier of technology and services. It employs roughly 418,000 associates worldwide (as of December 31, 2024). The company generated sales of 90.3 billion euros in 2024. Its operations are divided into four business sectors: Mobility, Industrial Technology, Consumer Goods, and Energy and Building Technology. With its business activities, the company aims to use technology to help shape universal trends such as automation, electrification, digitalization, connectivity, and an orientation to sustainability. In this context, Bosch's broad diversification across regions and industries strengthens its innovativeness and robustness. Bosch uses its proven expertise in sensor technology, software, and services to offer customers cross-domain solutions from a single source. It also applies its expertise in connectivity and artificial intelligence in order to develop and manufacture user-friendly, sustainable products. With technology that is "Invented for life," Bosch wants to help improve quality of life and conserve natural resources. The Bosch Group comprises Robert Bosch GmbH and its roughly 490 subsidiary and regional companies in over 60 countries. Including sales and service partners, Bosch's global manufacturing, engineering, and sales network covers nearly every country in the world. Bosch's innovative strength is key to the company's further development. At 136 locations across the globe, Bosch employs some 87,000 associates in research and development.

Press Contact

PRESS INFORMATION

Please get in touch with our Press Contact



Manuela Kessler

Spokesperson
technology topics
+49 9352 184145

Manuela.Kessler@boschrexroth.de